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10/783,728	02/20/2004	Raymond J. Hanneman JR.	RBP-31784-B	6605

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EXAMINER	
COLILLA, DANIEL JAMES	
ART UNIT	**PAPER NUMBER**
2854	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

SM

Office Action Summary	Application No.	Applicant(s)	
	10/783,728	HANNEMAN ET AL.	
	Examiner	Art Unit	
	Daniel J. Colilla	2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *21 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *26-31 and 56-80* is/are pending in the application.

4a) Of the above claim(s) *78-80* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *26-31,56-59,61,62,64-69 and 71-77* is/are rejected.

7)☒ Claim(s) *32,60,63 and 70* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 February 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *2/20/04, 12/3/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of claims 26-77 in the reply filed on 4/10/05 is acknowledged. However, applicant has failed to provide any arguments regarding this traversal.

Thus the requirement is still deemed proper and is therefore made FINAL.

Drawings

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claims 32 and 70 are objected to because of the following informalities:

In claim 32, "the measuring device" has no antecedent basis in the claims. For purposes of examination, this claim will be interpreted as depending from claim 31.

Similarly, in claim 70, "the output measurement of pH" has no antecedent basis in the claims. For purposes of examination, this claim will be interpreted as depending from claim 69.

Appropriate correction is required.

4. It is noted that claim 59 is written in a style common to Markush Group type language, but claim 59 lacks the language necessary to be a Markush Group. As it stands now, the claim reads as a simple "or" alternative statement. In other words, the claim is being interpreted to such that he first liquid concentrate further comprises all the listed elements or a combination of any of the listed elements.

Claim 63 is written in a similar manner and will be interpreted in a similar manner as claim 59.

Claim Rejections - 35 USC § 103

5. Claims 56, 58, 61, 62, 64 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Takekoshi. (JP 6-344533).

With respect to claim 56, Conti et al. discloses the claimed system except for the mixing structure to continuously meter proportions of the liquid concentrates into a water source. Conti et al. discloses a second liquid concentrate (a microemulsion formulation) that is mixed with a first liquid concentrate (a commercial dampening solution concentrate) as mentioned in col. 3, lines 10-14 of Conti et al. Conti et al. further discloses that commercial dampening solution concentrates typically include a film forming component (gum arabic) as mentioned in col. 5, lines 3-8, and that the second liquid concentrate can include a wetting component (nonionic surfactant as disclosed in col. 4, lines 26-35).

Takekoshi discloses a mixing apparatus for mixing two undiluted solutions A and B into a tank 26 that is supplied with water (see paragraphs [0030], [0031] and [0033] of the machine

translation of Takekoshi and Figure 1). The equipment is automatic and therefore continuous to the extent that the operator intends it to be. It would have been obvious to combine the teaching of Takekoshi with the system disclosed by Conti et al. for the advantage of automatically metering and mixing the two concentrates.

With respect to claim 58, Conti et al. discloses that the water-soluble film forming polymer may be gum arabic (Conti et al., col. 5, lines 3-8).

With respect to claims 61 and 64, Conti et al. discloses that the second liquid concentrate includes 20% to 60% diluent (col. 3, lines 47-50), 2%-50% solvent (partially water soluble polymer, col. 3, lines 44-45) and 2%-4% surfactant as disclosed in col. 4, lines 26-45). These amounts overlap the ranges of claim 64 . Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); In re Fields 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The reference suggests the claimed composition.

With respect to claim 62, Conti et al. discloses that the second liquid concentrate includes a diluent that can be tripropylene glycol (water-soluble glycol) (col. 3, lines 38-40) and a solvent that can be partially water soluble tripropylene glycol C1 to C6 alkyl ether (col. 4, lines 5-9).

With respect to claim 66, Conti et al. discloses that the second liquid concentrate includes from about 5% to 60% by weight water (col. 3, lines 47-53). These amounts overlap the ranges of claim 66. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re*

Malagari 182 USPQ 549 (CCPA 1974); In re Fields 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The reference suggests the claimed composition.

6. Claims 57, 59 and 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Takekoshi. (JP 6-344533) as applied to claim 56 above, and further in view of Matsumoto et al. (US 6,294,318).

With respect to claim 57, Conti et al. in view of Takekoshi discloses the claimed system except that it is not known if the first liquid concentrate disclosed by Conti et al. includes an organic acid. However, Matsumoto et al. teaches a fountain solution that includes an organic acid as mentioned in col. 6, lines 28-34. Note that while this portion of Matsumoto et al. refers to a plate surface protective agent, in col. 3, lines 27-31, Matsumoto et al. teaches that the same compound can be used in a fountain solution. It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. in view of Takekoshi for the advantage of a fountain solution that is safe to use in the working environment (Matsumoto et al., col. 3, lines 50-54).

With respect to claim 59, Conti et al. in view of Takekoshi discloses the claimed system except for the substances or combination of substances listed in claim 59. However, Matsumoto et al. discloses an inorganic acid and an inorganic acid salt (Matsumoto et al., col. 6, lines 28-34 and col. 7, lines 510); a buffering agent (Matsumoto et al., col. 11, lines 32-39); a water-soluble glycol solvent such as ethylene glycol isoamyl ether (Matsumoto et al., col. 6, lines 37-40 and col. 7, lines 37-41 and lines 56-59) and a biocide (antiseptic, col. 6, lines 36);

7. Claims 26, 27 and 65 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Takekoshi (JP 6-344533) and further in view of Matsumoto et al. (US 5,064,749).

With respect to claim 26, Conti et al. discloses the claimed system for preparing a fountain solution except for the percentage by weight of water of the first liquid concentrate, a source of water and the apparatus for proportioning each of the first and second liquid concentrates. Conti et al. discloses a second liquid concentrate (a microemulsion formulation) that is mixed with a first liquid concentrate (a commercial dampening solution concentrate) as mentioned in col. 3, lines 10-14 of Conti et al. Conti et al. further discloses that commercial dampening solution concentrates typically include a film forming component (gum arabic) as mentioned in col. 5, lines 3-8, and that the second liquid concentrate can include a wetting component (nonionic surfactant as disclosed in col. 4, lines 26-35). Additionally, Conti et al. discloses that the second liquid concentrate includes from about 5% to 60% by weight water (col. 3, lines 47-53).

Takekoshi discloses an apparatus operable for metering a proportion of a stream of each of two undiluted solutions A and B into a tank 26 that is supplied with water (pipe 46) to form a fountain solution (see paragraphs [0030], [0031] and [0033] of the machine translation of Takekoshi and Figure 1). It would have been obvious to combine the teaching of Takekoshi with the system disclosed by Conti et al. for the advantage of automatically metering and mixing the two concentrates.

Matsumoto et al. teaches a first liquid concentrate that has 30% to 75% by weight water (Matsumoto et al., col. 3, line 27). These amounts overlap the ranges of claim 65.

Product claims with numerical ranges which overlap prior art ranges, as mentioned above with respect to the Conti et al. and Matsumoto et al. references, were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); In re Fields 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The reference suggests the claimed composition. It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. for the advantage of a dampening solution (first liquid concentrate) that has no toxicity and does not pollute the working environment (Matsumoto et al., abstract).

With respect to claim 27, Takekoshi discloses metering means 16A and 16B which are operable to meter specific volumes of the first and second concentrates A and B into the water.

With respect to claim 65, Conti et al. in view of Takekoshi discloses the claimed system, as applied to claim 56 above, except that the water percentage of the first liquid concentrate is not known to the examiner. However, Matsumoto et al. teaches a first liquid concentrate that has 30% to 75% by weight water (Matsumoto et al., col. 3, line 27). These amounts overlap the ranges of claim 65. Product claims with numerical ranges which overlap prior art ranges were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); In re Fields 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The reference suggests the claimed composition.

It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. in view of Takekoshi for the advantage of a dampening solution (first liquid concentrate) that has no toxicity and does not pollute the working environment (Matsumoto et al., abstract).

8. Claims 29-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Takekoshi (JP 6-344533) and Matsumoto et al. (US 5,064,749), as applied to claims 26, 27 and 65 above, and further in view of Beckley (US 4,523,854).

With respect to claims 29-30, Conti et al. in view of Takekoshi and Matsumoto et al. discloses the claimed system except for the conduit for discharging the fountain solution into a container. Takekoshi teaches discharging separate components of the fountain solution into a container but not discharging the actual fountain solution itself into the container. However, Beckley teaches a device for mixing fountain solution including a conduit 66 for discharging fountain solution into a recirculating tank (not shown, col. 4, lines 16-19). It would have been obvious to combine the teaching of Beckley with the system disclosed by Conti et al. in view of Takekoshi and Matsumoto et al. for the advantage of pressurizing the fountain solution so that it can be supplied at a consistent pressure to multiple printing presses (Beckley, col. 4, lines 16-20).

9. Claims 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Takekoshi (JP 6-344533) and Matsumoto et al. (US 5,064,749), as applied to claims 26, 27 and 65 above, and further in view of Whitehead (US 5,897,693).

Conti et al. in view of Takekoshi and Matsumoto et al. discloses the claimed system except for the at least one measuring device. However, Whitehead teaches an apparatus for mixing a fountain solution which includes a sensor 33 in contact with the fountain solution 29 (as shown in Figure 1 of Whitehead) in order to measure the pH or conductivity of the fountain solution (Whitehead, col. 3, lines 63-66). Thus the measuring device is a pH probe or

conductivity probe. It would have been obvious to combine the teaching of Whitehead with the system disclosed by Conti et al. in view of Takekoshi and Matsumoto et al. for the advantage of a system that automatically adds fountain solution concentrate when it is determined it needs more.

10. Claims 67 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Takekoshi (JP 6-344533), Matsumoto et al. (US 5,064,749) and Newman (US 4,231,605).

With respect to claim 67, Conti et al. discloses the claimed system for preparing a fountain solution except for the first and second liquid concentrates being packaged together, the first liquid concentrate comprising one or more organic acids or the metering apparatus. Conti et al. discloses a second liquid concentrate (a microemulsion formulation) that is mixed with a first liquid concentrate (a commercial dampening solution concentrate) as mentioned in col. 3, lines 10-14 of Conti et al. Conti et al. further discloses that commercial dampening solution concentrates typically include a water soluble film-forming polymer (gum arabic) as mentioned in col. 5, lines 3-8. Additionally, Conti et al. discloses that the second liquid concentrate can include a diluent that can be tripropylene glycol (water-soluble glycol) (col. 3, lines 38-40), a solvent that can be partially water soluble tripropylene glycol C1 to C6 alkyl ether (col. 4, lines 5-9) and a surfactant (Conti et al., col. 4, lines 26-45).

Takekoshi discloses a metering apparatus for mixing two undiluted solutions A and B into a tank 26 that is supplied with water in order to form a fountain solution (see paragraphs [0030], [0031] and [0033] of the machine translation of Takekoshi and Figure 1). It would have

been obvious to combine the teaching of Takekoshi with the systems disclosed by Conti et al. for the advantage of automatically mixing the separate concentrates to form the fountain solution.

Matsumoto et al. teaches a fountain solution that includes an organic acid as mentioned in col. 4, lines 38-40). It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. for the advantage of a fountain solution that has no toxicity and does not pollute the working environment (see abstract of Matsumoto et al.).

With respect to the concentrates being separately contained and packaged together, since second liquid concentrate (microemulsion) is used with a commercial dampening solution concentrate as the first liquid concentrate, the two would inherently be separately contained since they are from two different sources. Furthermore, Newman discloses packaging of two separate fluid containers as shown in Figures 1-2 of Newman. It would have been obvious to combine the teaching of Newman with the system disclosed by Conti et al. for the advantage of maintaining the two concentrates in close proximity to one another and for indicating that the two concentrates are to be used together.

11. Claims 67-68 and 71-72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Hill (US 4,390,035), Matsumoto et al. (US 5,064,749) and Newman (US 4,231,605).

With respect to claims 67 and 71, Conti et al. discloses the claimed system for preparing a fountain solution except for the first and second liquid concentrates being packaged together, the first liquid concentrate comprising one or more organic acids or the metering apparatus. Conti et al. discloses a second liquid concentrate (a microemulsion formulation) that is mixed

with a first liquid concentrate (a commercial dampening solution concentrate) as mentioned in col. 3, lines 10-14 of Conti et al. Conti et al. further discloses that commercial dampening solution concentrates typically include a water soluble film-forming polymer (gum arabic) as mentioned in col. 5, lines 3-8. Additionally, Conti et al. discloses that the second liquid concentrate can include a diluent that can be tripropylene glycol (water-soluble glycol) (col. 3, lines 38-40), a solvent that can be partially water soluble tripropylene glycol C1 to C6 alkyl ether (col. 4, lines 5-9) and a surfactant (Conti et al., col. 4, lines 26-45).

Hill discloses an apparatus operable for metering a proportion of a stream of each of two chemicals from tank 32 and tank 32a into a chamber 28 that is supplied with water (pipe 16) to form a mixed solution. It would have been obvious to combine the teaching of Hill with the system disclosed by Conti et al. for the advantage of automatically metering and mixing the two concentrates.

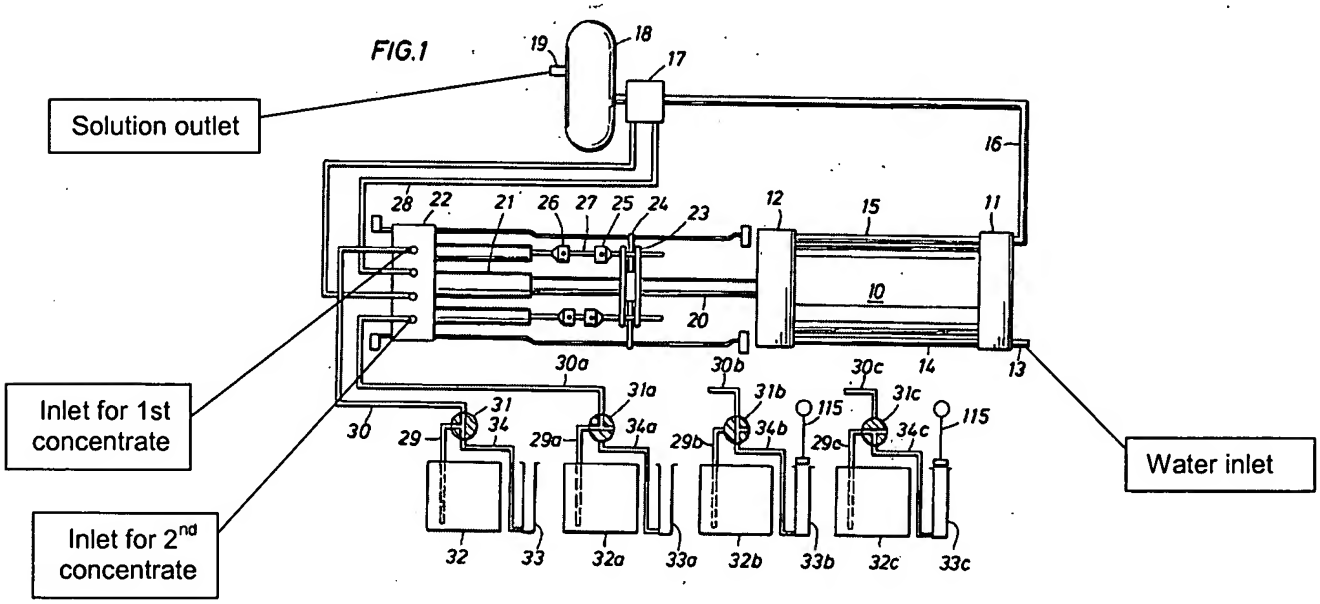
Matsumoto et al. teaches a fountain solution that includes an organic acid as mentioned in col. 4, lines 38-40). It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. for the advantage of a fountain solution that has no toxicity and does not pollute the working environment (see abstract of Matsumoto et al.).

With respect to the concentrates being separately contained and packaged together, since second liquid concentrate (microemulsion) is used with a commercial dampening solution concentrate as the first liquid concentrate, the two would inherently be separately contained since they are from two different sources. Furthermore, Newman discloses packaging of two separate fluid containers as shown in Figures 1-2 of Newman. It would have been obvious to combine the teaching of Newman with the system disclosed by Conti et al. for the advantage of maintaining

the two concentrates in close proximity to one another and for indicating that the two concentrates are to be used together.

With further respect to claim 71, Conti et al. discloses that the fountain solution may be prepared as an aqueous solution (Conti et al., col. 14, lines 57-65).

With respect to claim 68, Hill teaches that the apparatus includes a proportioning pump comprising an inlet for the first concentrate, an inlet for the second concentrate, an inlet for the water source and an outlet for dispensing the mixed solution as shown below in the Figure taken from Figure 1 of Hill:



Hill further teaches a motor piston 20 (as shown in Figure 1 of Hill) and first and second metering pistons 101 (as shown in Figure 3 of Hill) for metering a proportion of the first and second concentrates into the water within the pump. Movement of the motor piston 20 meters water into the apparatus and causes movement of the first and second metering pistons 101 as described in col. 4, lines 29-51.

With respect to claim 72, Hill discloses a multi-action pump 15,22,17,18 with mixing chamber 18.

12. Claim 69 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Hill (US 4,390,035), Matsumoto et al. (US 5,064,749) and Newman (US 4,231,605), as applied to claim 67 above, and further in view of Whitehead (US 5,897,693).

Conti et al. in view of Hill, Matsumoto et al. and Newman discloses the claimed system except for the at least one measuring device. However, Whitehead teaches an apparatus for mixing a fountain solution which includes a sensor 33 in contact with the fountain solution 29 (as shown in Figure 1 of Whitehead) in order to measure the pH or conductivity of the fountain solution (Whitehead, col. 3, lines 63-66). Thus the measuring device is a pH probe or conductivity probe. It would have been obvious to combine the teaching of Whitehead with the system disclosed by Conti et al. in view of Hill, Matsumoto et al. and Newman for the advantage of a system that automatically adds fountain solution concentrate when it is determined it needs more.

13. Claims 26 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Hill (US 4,390,035) and Matsumoto et al. (US 5,064,749).

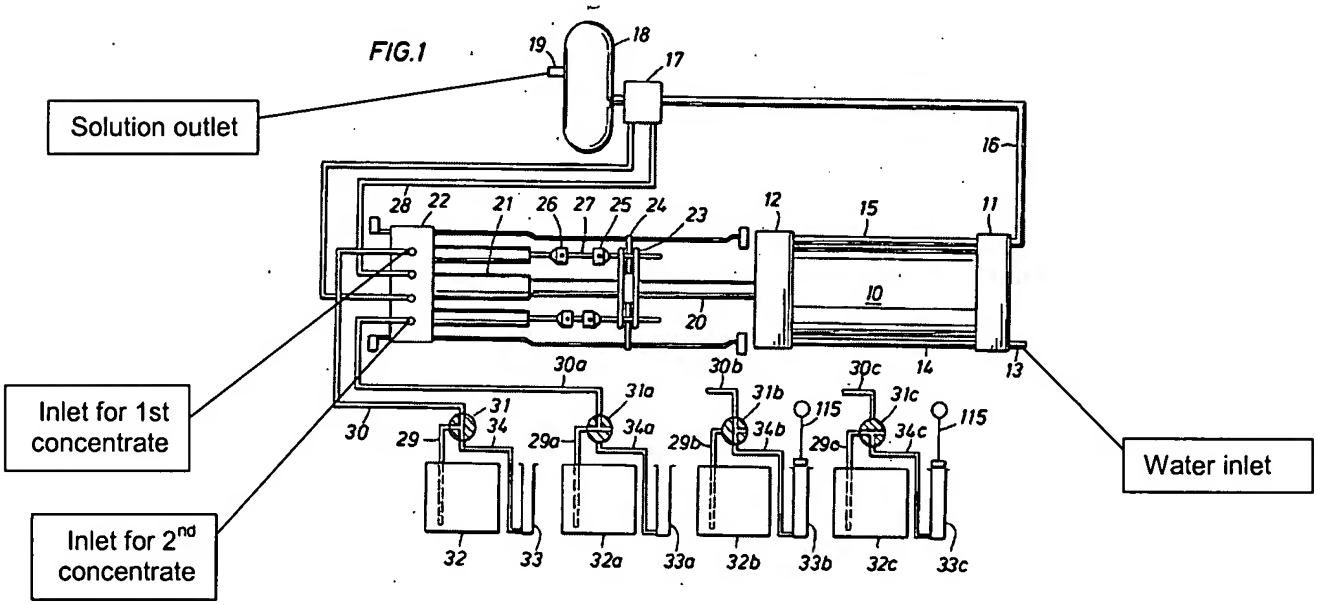
With respect to claim 26, Conti et al. discloses the claimed system for preparing a fountain solution except for the percentage by weight of water of the first liquid concentrate, a source of water and the apparatus for proportioning each of the first and second liquid concentrates. Conti et al. discloses a second liquid concentrate (a microemulsion formulation)

that is mixed with a first liquid concentrate (a commercial dampening solution concentrate) as mentioned in col. 3, lines 10-14 of Conti et al. Conti et al. further discloses that commercial dampening solution concentrates typically include a film forming component (gum arabic) as mentioned in col. 5, lines 3-8, and that the second liquid concentrate can include a wetting component (nonionic surfactant as disclosed in col. 4, lines 26-35). Additionally, Conti et al. discloses that the second liquid concentrate includes from about 5% to 60% by weight water (col. 3, lines 47-53).

Hill discloses an apparatus operable for metering a proportion of a stream of each of two chemicals from tank 32 and tank 32a into a chamber 28 that is supplied with water (pipe 16) to form a mixed solution. It would have been obvious to combine the teaching of Hill with the system disclosed by Conti et al. for the advantage of automatically metering and mixing the two concentrates.

Matsumoto et al. teaches a first liquid concentrate that has 30% to 75% by weight water (Matsumoto et al., col. 3, line 27). These amounts overlap the ranges of claim 65. Product claims with numerical ranges which overlap prior art ranges, as mentioned above with respect to the Conti et al. and Matsumoto et al. references, were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); In re Fields 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960). The reference suggests the claimed composition. It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. for the advantage of a dampening solution (first liquid concentrate) that has no toxicity and does not pollute the working environment (Matsumoto et al., abstract).

With respect to claim 28, Hill teaches that the apparatus includes a proportioning pump comprising an inlet for the first concentrate, an inlet for the second concentrate, an inlet for the water source and an outlet for dispensing the mixed solution as shown below in the Figure taken from Figure 1 of Hill:



Hill further teaches a motor piston 20 (as shown in Figure 1 of Hill) and first and second metering pistons 101 (as shown in Figure 3 of Hill) for metering a proportion of the first and second concentrates into the water within the pump. Movement of the motor piston 20 meters water into the apparatus and causes movement of the first and second metering pistons 101 as described in col. 4, lines 29-51.

14. Claim 73 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Matsumoto et al. (US 5,064,749) and Newman (US 4,231,605).

Conti et al. discloses the claimed system for preparing a fountain solution except for the first and second liquid concentrates being packaged together or the first liquid concentrate

comprising one or more organic acids. Conti et al. discloses a second liquid concentrate (a microemulsion formulation) that is mixed with a first liquid concentrate (a commercial dampening solution concentrate) as mentioned in col. 3, lines 10-14 of Conti et al. Conti et al. further discloses that commercial dampening solution concentrates typically include a water soluble film-forming polymer (gum arabic) as mentioned in col. 5, lines 3-8. Additionally, Conti et al. discloses that the second liquid concentrate can include a diluent that can be tripropylene glycol (water-soluble glycol) (col. 3, lines 38-40), a solvent that can be partially water soluble tripropylene glycol C1 to C6 alkyl ether (col. 4, lines 5-9) and a surfactant (Conti et al., col. 4, lines 26-45). Furthermore, Conti et al. discloses that the second liquid concentrate includes from about 5% to 60% by weight water (col. 3, lines 47-53) which overlaps the range of "up to about 10%" as recited in claim 73. Product claims with numerical ranges which overlap prior art ranges, as mentioned above with respect to the Conti et al. and Matsumoto et al. references, were held to have been obvious under 35 USC 103. *In re Wertheim* 191 USPQ 90 (CCPA 1976); *In re Malagari* 182 USPQ 549 (CCPA 1974); In re Fields 134 USPQ 242 (CCPA 1962); *In re Nehrenberg* 126 USPQ 383 (CCPA 1960).

Matsumoto et al. teaches a fountain solution that includes an organic acid as mentioned in col. 4, lines 38-40), and Matsumoto et al. teaches a first liquid concentrate that has 30% to 75% by weight water (Matsumoto et al., col. 3, line 27). It would have been obvious to combine the teaching of Matsumoto et al. with the system disclosed by Conti et al. for the advantage of a fountain solution that has no toxicity and does not pollute the working environment (see abstract of Matsumoto et al.).

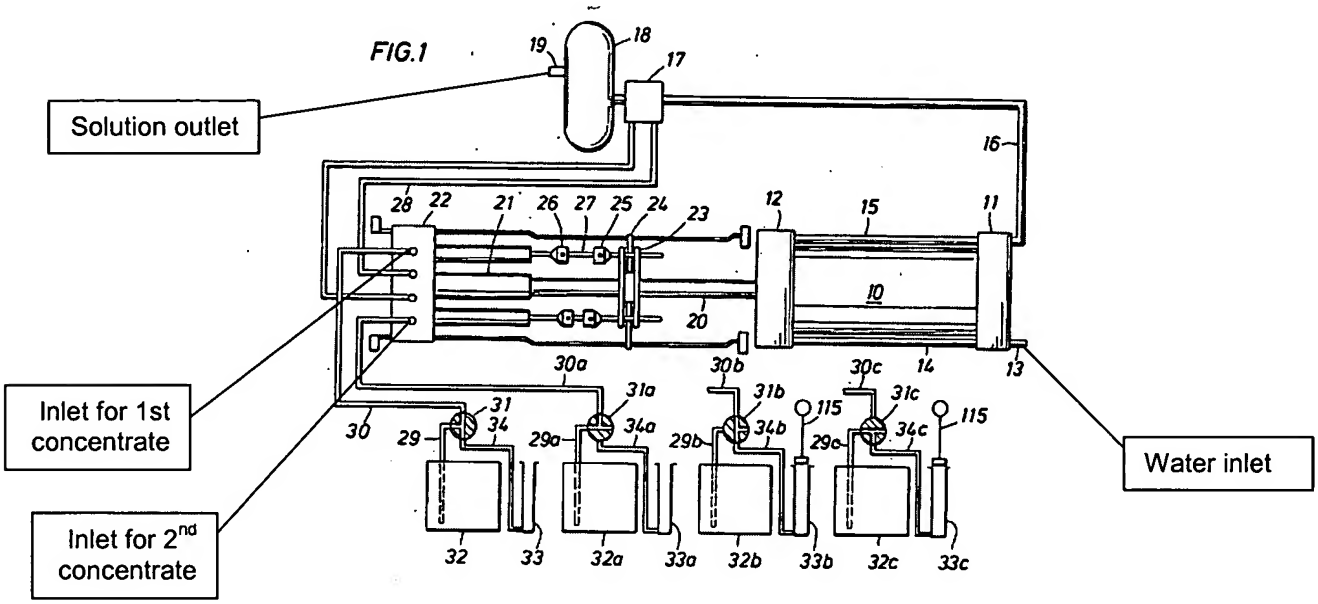
With respect to the concentrates being separately contained and packaged together, since second liquid concentrate (microemulsion) is used with a commercial dampening solution concentrate as the first liquid concentrate, the two would inherently be separately contained since they are from two different sources. Furthermore, Newman discloses packaging of two separate fluid containers as shown in Figures 1-2 of Newman. It would have been obvious to combine the teaching of Newman with the system disclosed by Conti et al. for the advantage of maintaining the two concentrates in close proximity to one another and for indicating that the two concentrates are to be used together.

15. Claims 74-76 are rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Matsumoto et al. (US 5,064,749) and Newman (US 4,231,605), as applied to claim 73 above, and further in view of Hill (US 4,390,035).

With respect to claim 74, Conti et al. in view of Matsumoto et al. and Newman discloses the claimed system except for the apparatus for metering the concentrates into water. However, Hill discloses an apparatus operable for metering a proportion of a stream of each of two chemicals from tank 32 and tank 32a into a chamber 28 that is supplied with water (pipe 16) to form a mixed solution. It would have been obvious to combine the teaching of Hill with the system disclosed by Conti et al. in view of Matsumoto et al. and Newman for the advantage of automatically metering and mixing the two concentrates.

With respect to claim 75, the metering apparatus is operable to deliver any specific volume of the first and second concentrates into water.

With respect to claim 76, Hill teaches that the apparatus includes a proportioning pump comprising an inlet for the first concentrate, an inlet for the second concentrate, an inlet for the water source and an outlet for dispensing the mixed solution as shown below in the Figure taken from Figure 1 of Hill:



Hill further teaches a motor piston 20 (as shown in Figure 1 of Hill) and first and second metering pistons 101 (as shown in Figure 3 of Hill) for metering a proportion of the first and second concentrates into the water within the pump. Movement of the motor piston 20 meters water into the apparatus and causes movement of the first and second metering pistons 101 as described in col. 4, lines 29-51.

16. Claim 77 is rejected under 35 U.S.C. 103(a) as being unpatentable over Conti et al. (US 5,387,279) in view of Matsumoto et al. (US 5,064,749) and Newman (US 4,231,605), as applied to claim 73 above, and further in view of Whitehead (US 5,897,693).

Conti et al. in view of Matsumoto et al. and Newman discloses the claimed system except for the at least one measuring device. However, Whitehead teaches an apparatus for mixing a fountain solution which includes a sensor 33 in contact with the fountain solution 29 (as shown in Figure 1 of Whitehead) in order to measure the pH or conductivity of the fountain solution (Whitehead, col. 3, lines 63-66). Thus the measuring device is a pH probe or conductivity probe. It would have been obvious to combine the teaching of Whitehead with the system disclosed by Conti et al. in view of Matsumoto et al. and Newman for the advantage of a system that automatically adds fountain solution concentrate when it is determined it needs more.

Allowable Subject Matter

17. Claims 32 and 70 are objected to as being dependent upon a rejected base claim and objected to for the above mentioned informalities, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims and rewritten to overcome the informalities.

18. Claims 60 and 63 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

19. The following is a statement of reasons for the indication of allowable subject matter:

Claims 32 and 70 have been indicated as containing allowable subject matter primarily for the device for controlling the proportion of the first liquid concentrate, the second liquid

concentrate or both in response to the output measurement of the pH, conductivity or surface tension of the fountain solution. While Whitehead teaches adding fountain solution concentrate to water upon measurement of pH or conductivity, he does not disclose controlling proportion of one concentrate with respect to another.

Claim 60 has been indicated as containing allowable subject matter primarily for the particular percentages of the first liquid concentrate components as recited in claim 60.

Claim 63 has been indicated as containing allowable subject matter primarily for the inclusion of a biocide, dye, defoaming agent, dosage marker, aromatic sulfonate, alkyl sulfate or a combination thereof in the second liquid concentrate.

20. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Colilla whose telephone number is 571-272-2157. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on 571-272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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June 23, 2005

Daniel J. Colilla
Primary Examiner
Art Unit 2854